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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER CHANKONG, DOHM	
			ART UNIT 2152	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/664,864

Applicant(s)

COUTURIER ET AL.

Examiner

Dohm Chankong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>9/22/2003</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

- 1> Claims 1-37 are presented for examination.
- 2> This is a non-final rejection.

Allowable Subject Matter

- 3> Claims 10 and 25 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claim Objections

- 4> Claims 14 and 29 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim shall refer to other claims *in the alternative only*. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- 5> Claims 1-37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are replete with minor grammatical and antecedent issues. What follows are merely examples of some of the §112 issues in the claims. In addition

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to correcting those issues identified below, Applicant should also carefully go over all the claims to insure compliance with §112.

- a. Claim 1 is rejected for lacking proper antecedent basis:
 - i. “the form”;
 - ii. “the case of transfer”;
 - iii. “the said duplicated packet” (only “at least part of each packet” is duplicated),
- b. Claim 1 is rejected for being unclear:
 - iv. “characterized in that *it* comprises” – the “it” term should be replaced by “the method” for clarity;
 - v. “so that *it* deduces therefrom” – the term should be replaced by “the control application” for clarity
 - vi. “so as to determine *those* which are formatted” – the claim language should explicitly refer to packets;
 - vii. “at least part of each packet thus duplicated, referred to as a ‘control packet’” – it is unclear whether “the part of each packet” or “each packet” is referred to as the control packet;
- c. Claim 2 is unclear; it recites that all control packets transferred are intercepted but based on the language of claim 1, “at least part” of each packet is duplicated, not the entire packet. Additionally, it is unclear what is being referred to as the “control packet” – the duplicated part of each packet or the entire packet that was intercepted;

- d. Claims 6 and 7 are rejected for being unclear; they recite the feature whereby part of a packet is duplicated only if one value is "substantially greater" than a threshold value. The term "substantially" is a relative term which renders the claim indefinite. The term is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. As such, there is no guidance as to how much greater the value needs to be over the threshold value for a packet to be duplicated.
- e. Claim 7 is rejected for lacking proper antecedent basis: "the whole of each intercepted control packet;"
- f. Claims 10, 25 and 27 are rejected for lacking proper antecedent basis: "the other duplicated fields";
- g. Claim 13 is rejected for lacking proper antecedent basis: "the quality of service;"
- h. Claims 34-37 are rejected for being of improper format;
- i. Claim 37 is rejected for lacking proper antecedent basis: "the COPS and SNMP protocols" and "the encapsulation protocols."

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6> Claims 1, 2, 15-17 and 31-36 are rejected under 35 U.S.C §102(a) as being anticipated by Wan et al, U.S Patent No. 6,529,475 ["Wan"].

7> As to claim 1, Wan discloses a method for intercepting data exchanged by remote terminals, via a communications network, in the form of control packets formatted according to a first real-time data transfer control protocol and associated with data previously exchanged by the said terminals [Figure 3 «items 201, 202»], characterized in that it comprises a step in which:

j. in the case of transfer of packets between at least two remote terminals, at least certain of the said packets are intercepted during the said transfer so as to determine those which are formatted according to the said first protocol [column 6 «lines 26-44» : "differentiate the packets and scan only the RTCP packets within the data traffic"], then

k. at least part of each packet thus formatted, referred to as a control packet, is duplicated [column 8 «lines 21-37» : "these monitors send the information received from the RTCP packets to central server" where this functionality is analogous to duplicating the information within the RTCP packets], and

l. data representing the said duplicated part are communicated to a control application located in the said network so that it deduces therefrom information on the said transfer [column 8 «lines 6-57» : the congestion monitors forward RTCP

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information to a central server which uses the information to determine congestion status of the network].

8> As to claim 2, Wan discloses that all the control packets transferred are intercepted [column 8 «lines 42-46»].

9> As to claim 15, Wan discloses that the whole of each intercepted control packet formatted according to the first protocol is duplicated [column 8 «lines 21-37» where : the entire packet is forwarded].

10> As to claim 16, as it does not teach or further define over the limitations of claim 1, claim 16 is similarly rejected for at least the same reasons set forth for claim 1.

11> As to claim 17, Wan discloses the interception means is organized for intercepting all the control packets transferred with a view to determining their format [column 6 «lines 45-49»].

12> As to claim 31, Wan discloses an interception means located in at least one of the items of network equipment through which the streams intended for the said terminals flow [Figure 2 «items 110, 100»].

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13> As to claim 32, Wan discloses that the said management means are located in at least one of the items of equipment in the network to which the said terminals are connected [Figure 2 | Figure 3 «item 203»].

14> As to claim 33, Wan discloses the network equipment is chosen is from a group comprising routers, NAT boxes, firewalls and traffic shapers [column 2 «lines 40-48»].

15> As to claims 34 and 35, Wan discloses network chosen from amongst public and private networks, in that the network is the Internet [column 2 «lines 18-24»].

16> As to claim 36, Wan discloses that the first protocol is called RTCP, and is associated with a real-time data transfer protocol called RTP [column 3 «lines 63-67» | column 4 «lines 61-67»].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17> Claims 3 and 18 are rejected under 35 U.S.C §103(a) as being unpatentable over Wan, in view of Kohler, Jr. et al, U.S Patent Application No. 2002|0032774 [“Kohler”].

18> As to claim 3, Wan does not expressly disclose intercepting only one sample amongst n. However, sampling packets, or every "n" packets, where "n" is an integer is a well known feature in the art.

For example, Kohler discloses sampling one packet in every "n" packets for the purpose of collecting statistics about the network [0033]. Such a feature is well known in the art for providing efficiency improvements to packet collectors because not every packet must be collected to gather statistics about the network. Thus, it would have been obvious to one of ordinary skill in the art to incorporate Kohler's packet sampling functionality into Wan to improve upon Wan's packet collecting efficiency.

19> As to claim 18, as it does not teach or further define over the limitations of claim 3, claim 18 is rejected for at least the same reasons set forth for claim 3.

20> Claims 4, 5, 19 and 20 are rejected under 35 U.S.C §103(a) as being unpatentable over Wan, in view of Bar et al, U.S Patent No. 6,122,665 ["Bar"].

21> As to claim 4, Wan does disclose differentiating between RTCP packet format and other packet formats [column 6 «lines 45-49»] but does not expressly disclose that the determination of the formatting concerns the determination of those packets in which at least a network address field for the terminal which sent the packet, a network address field

for the destination terminal of the packet, a destination port field and/or a source port field and a protocol number field have chosen values.

22> Bar discloses that the determination of a control packet's format concerns the determination of those packets in which at least a network address field for the terminal which sent the packet, a network address field for the destination terminal of the packet, a destination port field and/or a source port field and a protocol number field have chosen values [Figure 3A | Figure 4D | column 3 «lines 50-53» | column 9 «lines 50-55» | column 12 «lines 21-32»]. It would have been obvious to one of ordinary skill in the art to incorporate Bar's means of differentiating between different packet formats such as RTCP into Wan's system.

Wan already disclosed differentiating between RTCP packets and other packets but is simply silent as to how the congestion monitors achieved this functionality. Bar supplements Wan's functionality by providing an express teaching of how to differentiate between such packets by looking at the packet header to determine the protocol.

23> As to claim 5, Wan does not expressly disclose an application or an item of equipment communicating the chosen values. Bar does disclose this feature [Figure 4D]. It would have been obvious to one of ordinary skill in the art to incorporate Bar's means of differentiating between different packet formats such as RTCP into Wan's system.

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24> As to claim 19, as it does not teach or further define over the limitations of claim 1, claim 16 is similarly rejected for at least the same reasons set forth for claim 4.

25> As to claim 20, as it is merely a device that implements the method of claim 5, claim 20 is similarly rejected for at least the same reasons set forth for claim 5.

26> Claims 6-9, 11, 12, 21-23, 25 and 26 are rejected under 35 U.S.C §103(a) as being unpatentable over Wan, in view of Grabelsky et al, U.S Patent No. 6,678,250 ["Grabelsky"].

27> As to claims 6 and 7, Wan does disclose duplicating (forwarding) at least part of (claim 6) or the whole (claim 7) of each packet but does not expressly disclose comparing a chosen threshold value and the value of a service information field in order to duplicate the part of the control packet in which the service information field has a value greater than the said threshold value.

28> Grabelsky discloses a system for monitoring a networks using selected information from a RTCP packet [abstract]. Hepworth further discloses comparing a chosen threshold value and the value of a service information field in order to duplicate the part of or the whole of each control packet in which the service information field has a value greater than the said threshold value [column 10 «lines 64-66» | column 11 «lines 46-66» where : Grabelsky discloses copying the entire report included in the packet, where the report includes network information (figure 3)].

It would have been obvious to one of ordinary skill in the art to modify Wan to include Grabelsky's threshold monitoring functionality. One would have been motivated to provide such a modification to Wan's system to increase the monitoring functionality of Wan's system and improving the ability to monitor network performance parameters.

29> As to claims 8 and 9, Wan does not expressly disclose that certain chosen fields in each control packet, formatted according to the first protocol and in which the service information field has a value greater than the said threshold value, are duplicated, and in that the said duplicated fields are communicated (claim 8) and where one of the duplicated fields is the service information field (claim 9).

30> Grabelsky discloses certain chosen field in each control packet, formatted according to the first protocol and in which the service information field has a value greater than the said threshold value, are duplicated, and in that the said duplicated fields are communicated and wherein one of the duplicated fields is the service information field [Figure 3 | column 10 «lines 64-66» | column 11 «lines 46-66» where : Grabelsky discloses copying the entire report included in the packet, where the report includes network information (figure 3)].

It would have been obvious to one of ordinary skill in the art to modify Wan to include Grabelsky's threshold monitoring functionality. One would have been motivated to provide such a modification to Wan's system to increase the monitoring functionality of Wan's system and improving the ability to monitor network performance parameters.

31> As to claims 11 and 12, as they do not teach or further define over the limitations of claims 8 and 9, claims 11 and 12 are rejected for at least the same reasons set forth for claims 8 and 9.

32> As to claim 13, Wan does not expressly disclose the service information field comprises data representing the quality of service.

33> Grabelsky discloses the service information field comprises data representing the quality of service [column 11 «lines 46-66»].

It would have been obvious to one of ordinary skill in the art to modify Wan to include Grabelsky's threshold monitoring functionality. One would have been motivated to provide such a modification to Wan's system to increase the monitoring functionality of Wan's system and improving the ability to monitor network performance parameters.

34> As to claims 21-23 and 25, as they merely claim a device that implements the method of claims 6-8 and 10 respectively, they are similarly rejected for at least the same reasons set forth for claims 6-8 and 10, respectively.

35> As to claims 26 and 27, as they are merely claims to a device that implements the method of claims 8 and 9, claims 26 and 27 are rejected for at least the same reasons set forth for claims 8 and 9.

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36> As to claim 30, as it is merely a claim to a device that implements the method of claim 7, claim 30 is rejected for at least the same reasons set forth for claim 7.

37> Claim 37 is rejected under 35 U.S.C §103(a) as being unpatentable over Wan, in view of Roh et al, U.S Patent Application No. 2004|0148417 ["Roh"].

38> As to claim 37, Wan does not expressly disclose that the duplicated data are communicated according to a protocol chosen from a group comprising the COPS and SNMP protocols, and the encapsulation protocols.

39> Roh discloses communicating duplicated data according to SNMP [0083, 0089]. It would have been obvious to one of ordinary skill in the art to modify Wan to duplicate its RTCP packets using SNMP. One would have been motivated to provide such a modification to enhance Wan's system by utilizing a SNMP as the transmitting protocol for statistical data. SNMP is well known in the art for providing such functionality and it would have been obvious for one of ordinary skill in the art to have used SNMP to improve Wan.

40> Claims 6-9, 11, 12, 21-23, 25 and 26 are rejected under 35 U.S.C §103(a) as being unpatentable over Wan, in view of Hepworth et al, U.S Patent Application No. 2003|0120789 ["Hepworth"].

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41> As to claims 6 and 7, Wan does disclose duplicating (forwarding) at least part of (claim 6) or the whole (claim 7) of each packet but does not expressly disclose comparing a chosen threshold value and the value of a service information field in order to duplicate the part of the control packet in which the service information field has a value greater than the said threshold value.

42> Hepworth discloses a system for monitoring a multi-party session using selected information from a RTCP packet [abstract]. Hepworth further discloses comparing a chosen threshold value and the value of a service information field in order to duplicate the part of or the whole of each control packet in which the service information field has a value greater than the said threshold value [0040 | claim 19 where : Hepworth checks the “flag’s value” and if the value is set to a predetermined value, then duplicating the packet].

It would have been obvious to one of ordinary skill in the art to modify Wan’s forwarding functionality with Hepworth’s teachings to include the comparison of the flag value feature. One would have been motivated to provide such a modification to increase the Wan’s functionality to insure that that duplicated packets are forwarded to appropriate destinations [see Hepworth, 0040].

43> As to claims 8 and 9, Wan does not expressly disclose that certain chosen fields in each control packet, formatted according to the first protocol and in which the service information field has a value greater than the said threshold value, are duplicated, and in that

the said duplicated fields are communicated (claim 8) and where one of the duplicated fields is the service information field (claim 9).

44> Hepworth discloses certain chosen field in each control packet, formatted according to the first protocol and in which the service information field has a value greater than the said threshold value, are duplicated, and in that the said duplicated fields are communicated and wherein one of the duplicated fields is the service information field [0040 | claim 19 where : Hepworth discloses that the entire RTCP packet is duplicated including all of the fields and the service information field].

It would have been obvious to one of ordinary skill in the art to modify Wan's forwarding functionality with Hepworth's teachings. One would have been motivated to provide such a modification to increase the Wan's functionality to insure that that duplicated packets are forwarded to appropriate destinations [see Hepworth, 0040].

45> As to claims 11 and 12, as they do not teach or further define over the limitations of claims 8 and 9, claims 11 and 12 are rejected for at least the same reasons set forth for claims 8 and 9.

46> As to claims 21-23 and 25, as they merely claim a device that implements the method of claims 6-8 and 10 respectively, they are similarly rejected for at least the same reasons set forth for claims 6-8 and 10, respectively.

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47> As to claim 26, as it merely claims a device that implements the method of claims 8 and 9, claim 26 is rejected for at least the same reasons set forth for claims 8 and 9.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Harrison et al, U.S Patent No. 6,091,709;

Sturges et al, U.S Patent Publication No. 2002/0114274;

Bhagavath et al, U.S Patent No. 6,501,763;

Vega-Garcia et al, U.S Patent Publication No. 2003/0016630;

Anandakumar et al, U.S Patent No. 6,678,267;

Procopio et al, U.S Patent No. 6,691,167;

Upadrasta, U.S Patent No. 6,771,594;

Desai, U.S Patent No. 7,161,947.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dohm Chankong whose telephone number is 571.272.3942.

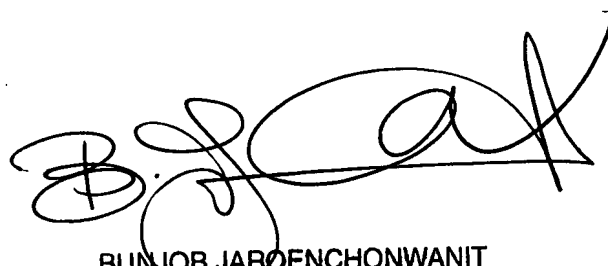
The examiner can normally be reached on Monday-Friday [8:30 AM to 4:30 PM].

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571.272.3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DC



BUNJOB JAROENCHONWANIT
SUPERVISORY PATENT EXAMINER

7/3/17